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(54) Title: USE OF ISLET GLUCOSE-6-PHOSPHATASE RELATED PROTEIN AS A DIAGNOSTIC TOOL AND THERAPEUTIC TARGET FOR AUTOIMMUNE DIABETES

INSULIN

IGRP

GLUCAGON + IGRF



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(57) Abstract: A method and compositions for detecting autoimmunity to islet glucose-6 phosphatase related protein (IGRP). Detection of IGRP autoantibodies alone, and in combination with other molecules such as the 65-kDa form of glutamate decarboxylase (GAD<sub>65</sub>), insulin and insulin granule membrane proteins ICA512 (IA-2) and phogrin (IA2β) auto-antigens, provides an effective and reliable chemical assay for the diagnosis of autoimmune (type 1) diabetes. Additionally, this invention provides therapeutic regimens based on IGRP and related molecules for the amelioration of the diabetic clinical condition. Therefore, IGRP alone or in combination with other autoimmune diabetes associated antigens such as insulin, IA-2 and GAD<sub>65</sub>, is useful in the prediction (diagnosis), treatment (therapy), and prevention (prophylaxis) of diabetes.